Tips for Handling Catastrophic Mold in a Building

A flood-damaged building can be reclaimed from a mold explosion, but special measures must be taken to contain and eliminate mold throughout the structure. Molds produce spores that spread easily through the air, and they form new mold growths (colonies) when they find the right conditions: moisture, nutrients (nearly anything organic) and a place to grow.

Historically, when solid wood structural supports and wood boards were used, temporary exposure to water was not much of a problem as long as drying and ultraviolet light from the sun had a chance to have an effect. Many modern building materials are more susceptible to microbial growth because of the loss of natural anti-fungal properties that occurs during the manufacturing process (example: wood to paper).

The extent to which a structure will have a mold problem depends on the construction materials involved and the drying/wetting cycles that may have occurred.

Here are some tips for handling catastrophic mold in a building:

- Dry the structure as quickly and thoroughly as possible. The humid conditions of the Gulf Coast contribute to mold growth in the best of circumstances, so speed the drying of subfloors, slabs and wall framing before replacing insulation, wallboard and flooring. If electricity is available, use air conditioning, heaters, fans, or better yet, a dehumidifier. Water damage restoration contractors with special equipment (dehumidifying blowers) can provide the fastest drying.
- Some items, such as paper, benefit from being placed in a freezer (or refrigerated truck, if electricity is unavailable) until conservation work can be done on them.
- All porous, moldy or sewage-contaminated materials that are non-essential should be removed, bagged and thrown away. This includes gypsum wallboard, insulation, plaster, carpet/carpet pad, ceiling tiles, processed wood products and paper. To minimize the spread of spores, cover moldy material with plastic to contain spores before removal.
- Surface mold on non-porous materials such as hard plastic, concrete, glass, metal and solid wood can be usually cleaned. Cleaning must remove, not just kill, the mold because dead spores can still cause health problems.
- Metal studs may rust but won't support mold.

- Wood frame lumber is reasonably resistant to mold but if it is actually sitting in water constantly or in a sawdust/water mix then fungal or mold growth is a possibility.
- Treat the frame lumber with a disinfectant (not bleach).
- Remove wet fiberglass insulation and check the exterior sheathing product for water damage.
- Exterior plywood or boards may be okay but oriented strand board (OSB) or some paper faced gypsum board exterior sheathing products are more porous and may need to be removed.
- The slab must be allowed to dry before flooring is installed. Specific tests for water release from concrete exist that determine whether the floor is dry enough for installation of carpeting or other flooring.
- A thorough cleaning of debris and sawdust is needed before any wall cavity is enclosed.
- The use of a vapor membrane or vinyl wall covering on the interior surface of an exterior wall may also be a source of mold concerns if the building is air-conditioned and the environment is humid. It is important that finished walls can breathe.
- Micro-punched, breathable wall coverings exist and painted walls are okay. Where applicable, vapor retarding membranes (poly) should always be on the warm side of the building to minimize moisture from entering a wall cavity. It is important to note that building wraps are not vapor retarders; they are designed only to shed liquid water not prevent the migration of water vapors in a gaseous state.

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